

Date: Thursday, 3/27/2008 7:41:41 AM
 User: Kim Johnston

Process Sheet

Customer	CU-DAR001 Dart Helicopters Services		Drawing Name	TUBE ASSEMBLY	
Job Number	38220		Part Number	D2003041	
Estimate Number	10921		Drawing Number	UNDER REVIEW	
P.O. Number	:		Project Number	N/A	
This Issue	3/27/2008	S.O. No. :	Drawing Revision	CONFIRM WITH ENG. CUT LENGTH OF TUBE (REF. 3287.6) 08.03.27	
Prsht Rev.	NC		Material		
First Issue	11	Type : SMALL /MED FAB	Due Date	4/2/2008	
Previous Run	37721		Qty:	5	Um: Each
Written By	:		Comment	Est: B 99.11.11 Re-format EC	
Checked & Approved By	JD 08.3.27				

Additional Product

Job Number:



Seq. #	Machine Or Operation:	Description:
1.0	DC	DOCUMENT CONTROL
		Comment: DOCUMENT CONTROL Photocopy bluefile & type labels per PPP D2003-041
2.0	M304TR0500W035	304 RD Tube .500 x .035W
		Comment: Qty.: 0.5145 f(s)/Unit Total : 2.5725 f(s) Material: 1/2" x 0.035" wall AISI 304 SS tubing Batch: M107403 ✓ ml
3.0	M26506	Firesleeve-crkl .375IDia
		6" x 5 = 30" = 2.5 ft ✓ ml Comment: Qty.: 0.5250 f(s)/Unit Total : 2.6250 f(s) Material: M2650-6 Heat sleeve Batch: M106781 ml
4.0	MS208198J	Sleeve
		Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s) Pick: Qty Part Number Description Batch 2 MS20819-8J Sleeve M107534 ✓ ml
5.0	AN8188J	Nut
		Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s) Pick: Qty Part Number Description Batch 2 AN818-8J Nut M106074 ✓ ml 08/03/28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 3/27/2008 7:41:41 AM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services		Drawing Name: TUBE ASSEMBLY
Job Number: 38220		Part Number: D2003041
Job Number: 		
Seq. #:	Machine Or Operation:	Description :
6.0	D2182 	Heat Shrink 
Comment: Qty.: 0.3750 f(s)/Unit Total : 1.8750 f(s) Pick: Qty Part Number Description Batch <i>B 21864A</i> ✓ <i>ml</i>		
7.0	SMALL FAB 1 	SMALL & MEDIUM FAB RESOURCE 1 
Comment: SMALL & MEDIUM FAB RESOURCE 1 1-Cut: 5.88" long as per Dwg D2003 <i>ml 08/03/07 x 5</i> X5 2-Cut: 6.00" long as per Dwg D2003 <i>ml 08/03/08</i> <i>ml 08/03/08</i> 3-Form tube as per template D2003-041 4-Assemble as per Dwg D2003		
8.0	QC5 	INSPECT WORK TO CURRENT STEP 
Comment: INSPECT WORK TO CURRENT STEP <i>08/03/28</i> <i>(X5)</i>		
9.0	PACKAGING 1 	PACKAGING RESOURCE #1 
Comment: PACKAGING RESOURCE #1 Identify and Stock <i>PC 8/3/31</i> (5) Location: <i>875</i>		
10.0	QC21 	FINAL INSPECTION/W/O RELEASE  <i>08/04/03</i>
Comment: FINAL INSPECTION/W/O RELEASE		
Job Completion 		<i>ml</i> 08-03-31 <i>W</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART



DESIGN

DRAWN BY

DART AEROSPACE LTD

HAWKESBURY, ONTARIO, CANADA

CHECKED

APPROVED

DRAWING NO.

REV. B

D2003

SHEET 1 OF 2

DATE

99.06.08

TITLE

SCALE

206 CABIN HEATER TUBE ASSEMBLIES NTS

A

90.04.09

NEW ISSUE

B

99.06.08

UPDATE PER TEMPLATES; ADD P/N'S;
0.025 TUBING NOW 0.035 (TSR1049)

RELEASED
49.06.04 RC

UNDER REVIEW

CC.08.21 CB

Some flat
lengths wrong

49.08.03.27

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NO. 38220

P/N	TEMPLATE	HEATSLEEVE LENGTH ¹	CUT LENGTH OF TUBE ²	MS20819-8J SLEEVE	AN818-8J NUT	MS20819-8D SLEEVE	AN818-8D NUT	MS20819-6D SLEEVE	AN818-6D NUT	DESC.	MATERIAL ^{4/87}	VENDOR OR SPEC
D2003-001	T2003-001	5.2	6.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-003	T2003-003	7.3	8.12					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-005	T2003-005	9.8	10.62					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-007	T2003-007	20.0	19.63					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-009	T2003-009	12.38	12.44					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-011	T2003-011	33.31	32.38					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-013	T2003-013	12.7	13.54					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-015	T2003-015	17.2	18.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-017	T2003-017	17.0	16.25					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-019	T2003-019	9.8	10.62		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-021	T2003-021	N/A	2.25		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-023	T2003-023	4.5	5.33		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-025	T2003-025	9.8	10.60		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-027	T2003-027	7.25	7.38		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-029	T2003-029	17.2	18.00		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-031	T2003-031	14.6	15.38	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-033	T2003-033	29.75	29.62	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-035	T2003-035	24.7	27.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-037	T2003-037	24.81	23.38	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-039	T2003-039	34.0	34.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-041	T2003-041	6.0	5.88	2	2	15.08.03.27				TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-043	T2003-043	11.7	10.75	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-045	T2003-045	3.50	2.44	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-047	T2003-047	5.56	5.56	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-049	T2003-049	33.2	34.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-077	T2003-077	N/A	6.25					1	1	JET	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-101	T2003-101	13.25	13.13			2	2			TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-600/6
D2003-103	T2003-103	12.38	12.00			2	2			TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-600/6
D2003-105	T2003-105	10.75	10.60			2	2			TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-600/6
D2003-107	T2003-107	12.75	12.25			2	2			TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-600/6
D2003-109	T2003-109	8.25	8.125		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-600/6
D2003-111	T2003-111	4.75	4.625		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-600/6
D2003-116	T2003-116	4.0								HEATSLEEVE	M2650-20 CRINKLE-SOFT	STRATOFLEX
D2003-120	T2003-120	4.0								HEATSLEEVE	M2650-16 CRINKLE-SOFT	STRATOFLEX
D2003-14	T2003-14	4.0								HEATSLEEVE	M2650-14 CRINKLE-SOFT	STRATOFLEX
D2003-16	T2003-16	4.0								HEATSLEEVE	M2650-16 CRINKLE-SOFT	STRATOFLEX
D2003-205	T2003-205	9.75	9.60			2	2			TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-207	T2003-207	3.75	3.75			2	2			TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6

DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2003
DATE	99.06.08	TITLE 206 CABIN HEATER TUBE ASSEMBLIES NTS SCALE

RELEASED
99.06.08 KE**UNDER REVIEW**

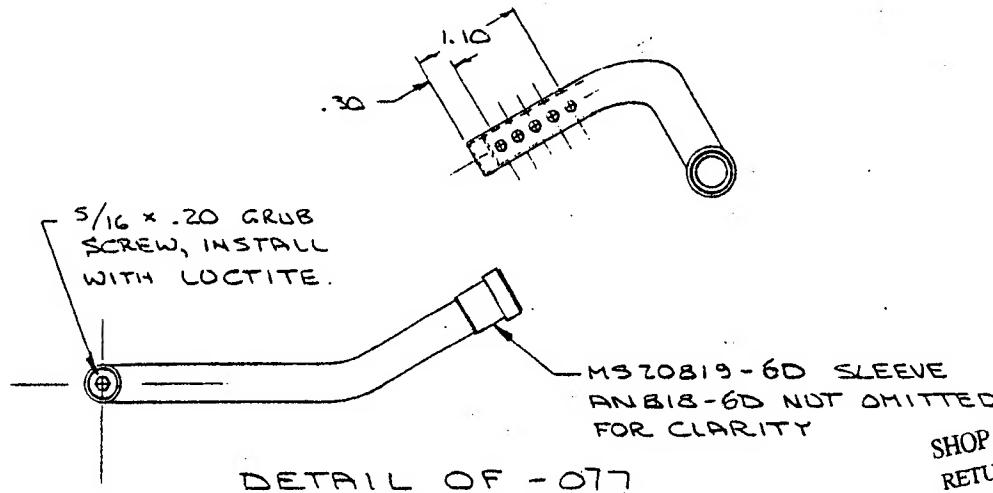
06.08.21 CB

Some flat lengths
were wrong

06.07.22

Notes:

- (1) USE STRATOFLEX M2650-6 CRINKLE-SOFT HEATSLEEVE.
- (2) TUBING ASSEMBLIES TO BE CUT AND BENT IN ACCORDANCE WITH TEMPLATES.
- (3) TUBES TO BE FLARED 30° TO MATE WITH FITTINGS MADE TO MS33514.
- (4) ENSURE SEAMLESS TUBING IS USED.
- (5) INSTALL HEATSLEEVE OVER ALL TUBES WITH A DESIGNATED LENGTH OF HEATSLEEVE PER THE PARTS LIST.
- (6) 5052 (WW-T-700/4) TUBING MAY BE SUBSTITUTED WHEN 6061 TUBING IS NOT AVAILABLE.
- (7) 0.049 WALL THICKNESS CRES TUBING MAY BE SUBSTITUTED WHEN 0.035 IS NOT AVAILABLE.
- (8) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.



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